

Name: _____ Period: _____ Date: 5/18/12 Must be returned 5/21/12

Perfect-Square

or

Difference of Two Squares

Take Home

$$a^2 + 2ab + b^2 = (a + b)^2$$

$$a^2 - 2ab + b^2 = (a - b)^2$$

$$a^2 - b^2 = (a + b)(a - b)$$

Quiz

Use one of the equation rules above to Factor the trinomial:

Parent Signature

1. Write the rule and the resulting rule as shown in the example.

2. Find a^2 and b^2 & a and b

3. Write the answer

4. Check by Guess & Check or FOIL

1.	$x^2 + 24x + 144 = (a + b)^2$ $a^2 + 2ab + b^2$ $b^2 = \underline{\hspace{2cm}} \text{ \& } a^2 = \underline{\hspace{2cm}}$ $b = \underline{\hspace{2cm}} \text{ \& } a = \underline{\hspace{2cm}}$ $(\underline{\hspace{2cm}} \quad \underline{\hspace{2cm}})(\underline{\hspace{2cm}} \quad \underline{\hspace{2cm}})$	2.	$x^2 - 18x + 81$
3.	$49x^2 - 64$	4.	$x^2 + 18x + 81$
5.	$4x^2 - 12x + 9$	6.	$100x^4 - 1$

Factor by Guess & Check (SHOW ALL THE WORK: FOLLOW THE MODEL EXACTLY)

Write what the Plus and Minus signs mean on the 2nd and 3rd terms.

11.	$x^2 + 14x + 45$ <u>Positive</u> <u>Both</u>	12.	$x^2 - 28x + 27$ <u> </u> <u> </u>
<p>Factors Sum</p> <p>$[A \cdot B] = +45$ $(A+B) = +14$</p> <p>$[1 \cdot 45] = +45$ $(1+45) \neq +14$</p> <p>$[5 \cdot 9] = +45$ $(5+9) = +14$</p> <p>answer: $(x+5)(x+9)$</p> <p>Check using FOIL: $(x+5)(x+9)$</p> <p>$x^2 + 5x + 9x + 45$</p> <p>$x^2 + 14x + 45$</p>		<p>Factors Sum</p> <p>$[A \cdot B] = \underline{\hspace{2cm}}$ $(A+B) = \underline{\hspace{2cm}}$</p> <p>Check using FOIL:</p>	
11.	$x^2 + 30x + 125$ <u> </u> <u> </u>	12.	$x^2 - 7x - 18$ <u> </u> <u> </u>
<p>Factors Sum</p> <p>$[A \cdot B] = \underline{\hspace{2cm}}$ $(A+B) = \underline{\hspace{2cm}}$</p> <p>Check using FOIL:</p>		<p>Factors Sum</p> <p>$[A \cdot B] = \underline{\hspace{2cm}}$ $(A+B) = \underline{\hspace{2cm}}$</p> <p>Check using FOIL:</p>	
11.	$x^2 + 12x - 45$ <u> </u> <u> </u>	12.	$x^2 - 23x + 60$ <u> </u> <u> </u>
<p>Factors Sum</p> <p>$[A \cdot B] = \underline{\hspace{2cm}}$ $(A+B) = \underline{\hspace{2cm}}$</p> <p>Check using FOIL:</p>		<p>Factors Sum</p> <p>$[A \cdot B] = \underline{\hspace{2cm}}$ $(A+B) = \underline{\hspace{2cm}}$</p> <p>Check using FOIL:</p>	